



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,088	10/11/2005	Shigetoshi Miyama	10873.1773USWO	6631
52835 7590 07/02/2008 HAMRE, SCHUMANN, MUELLER & LARSON, P.C. P.O. BOX 2902 MINNEAPOLIS, MN 55402-0902				
EXAMINER TOSCANO, ALICIA				
ART UNIT		PAPER NUMBER		
1796				
MAIL DATE		DELIVERY MODE		
07/02/2008		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/553,088

Applicant(s)

MIYAMA ET AL.

Examiner

Alicia M. Toscano

Art Unit

1796

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 May 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 and 25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/5508)
Paper No(s)/Mail Date 5/21/08
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Inventor's Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

1. Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 16, 17, 18, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo (JP 2003213122) in view of Sakakibara (US 5112903).

This rejection is as set forth in the action dated 7/25/07. Regarding the new temperature limitation, Otomo discloses mixing the resins at a temperature lower than the melting point of the polyester (abstract), but does not explicitly disclose a temperature range. As evidenced by Hawley's Chemical Dictionary (attached), the melting temperature of polyethylene terephthalate is 265C. Thusly, it is the Examiner's position that Otomo anticipates heating and mixing temperatures of up to about 264C, meeting the temperature requirements of the claims.

Remarks:

Applicant argues Otomo identifies the problem of the presence of moisture during manufacturing and as such one would not combine the above references. Applicant argues Otomo discloses kneading at a temperature lower than the melting temperature, wherein the claims require the polymer to be molten. Applicant argues Otomo discloses that a plasticizer may be used as along as the physical properties are not damaged and thusly one would not look to add water as a plasticizer.

The Examiner disagrees. Though Otomo discloses the difficulties due to hydrolysis due to water Otomo is not so concerned as to pre-dry the polyester resin prior to mixing [0054]. Since water is in Otomo's composition, since there is no disclosure as to the amount of water which would lead to a detrimental properties, since Otomo discloses plasticizers may be added, since plasticizers are a minor component in the resin and since Sakakibara discloses water to be a known plasticizer it is the Examiner's position that the addition of water as a plasticizer would result in the desired plasticization and not result in hydrolysis. The Examiner requests evidence to the contrary. Regarding the newly added temperature range, said range is met as set forth above. For the reasons already set forth it is the Examiner's position that the minor amount of water added as a plasticizer would not damage the physical properties of the resin.

In order to overcome this rejection the Examiner recommends the following amendments:

1. change "polyester" in claim 1 to polyethylene terephthalate **and**
 2. add the limitation "wherein kneading is conducted at a temperature higher than the melting temperature of the polyethylene terephthalate resin"
2. Claims 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 15, 17, 18, 22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakakibara in view of Otomo.

This rejection is as set forth in the action dated 7/25/07. Regarding the temperature limitation, Sakakibara discloses mixing in the molten state (Column 12 line

Art Unit: 1796

50), as evidenced by Hawleys (as above) the melting point of polyethylene terephthalate is 265C and thusly mixing in the molten state encompasses the range of the claims.

Remarks

Applicant argues that the two resins are not functioning in such a way in the presence of moisture that their interchange from one system to the other would represent a predictable application.

The Examiner disagrees. Both are blends of polyester resins. That they are used for different purposes or have different end results is moot. Otomo is used solely to teach why one would pick the specific combination out of the myriad of options in Sakakibara, (because said combination is taught to have excellent mechanical properties). As such Applicant's arguments are not persuasive. .

3. Claims 19, 21, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo and Sakakibara or Sakakibara and Otomo in view of Taguchi (JP 2000-052408).

This rejection is as set forth in the action dated 7/28/07/

Remarks:

Applicant argues claim 1 has been distinguished from Otomo and Sakakibara and thusly the above dependant claims are also distinguished.

The Examiner disagrees, Applicant has not overcome the rejections over claim 1.
As such this rejection is proper and stands.

4. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over Otomo and Sakakibara or Sakakibara and Otomo in view of Masadu (JP 2004-195685).

This rejection is as set forth in the action dated 7/28/07

Remarks:

Applicant argues claim 1 has been distinguished from Otomo and Sakakibara and thusly the above dependant claims are also distinguished.

The Examiner disagrees, Applicant has not overcome the rejections over claim 1.
As such this rejection is proper and stands.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alicia M. Toscano whose telephone number is (571)272-2451. The examiner can normally be reached on M-F 8:00 AM to 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Randy Gulakowski can be reached on 571-272-1302. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1796

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMT

/Randy Gulakowski/
Supervisory Patent Examiner, Art Unit 1796